REMARKS

Claims 1-12 are pending in this application. The Final Rejection mailed on January 31, 2007 rejects claims 1-6 under 35 U.S.C. §102(b) and claims 7-12 under 35 U.S.C. §103(a). Applicant amends claims 1-6 and add new claims 13-14. Support for the amendments can be found, for example, in the specification at page 3, lines 10-13. No new matter is added.

I. Rejections Under 35 U.S.C. §102(b)

The Final Rejection rejects claims 1-6 under 35 U.S.C. §102(b) as anticipated by Nawa in view of Sherif. The Final Rejection asserts that Nawa teaches each claimed feature except for "the aqueous phase emulsified in the organic phase with a surfactant," and "organic phase having dissolved therein a zirconium alkoxide, wherein conducting [*sic*] said organic phase with said aqueous phase to produce a product for the zirconium hydroxide by hydrolysis reaction of zirconium alkoxide at their interface between said organic and aqueous phases while incorporating the zirconium element in the product [*sic*]." Thus, it would allegedly have been obvious to an ordinarily skilled artisan at the time of the invention to add a surfactant to a solution comprising metal alkoxide for the purpose of forming an emulsion in a substantially similar process of forming metal oxides from corresponding metal alkoxides by a hydrolysis reaction as taught by Sherif. Additionally, the Final Rejection asserts that it would allegedly have been obvious to an ordinarily skilled artisan at the time of the invention to substitute zirconium alkoxide with titanium alkoxide as taught by Sherif. Applicant respectfully traverses the rejection.

Applicants agree that Nawa fails to disclose at least the above-referenced features of instant claim 1. Applicants also note that combining references in the manner suggested in the Office Action is improper in a rejection under 35 U.S.C. §102(b). A secondary reference such as Sherif may only be used in a §102(b) rejection to prove that 1) Nawa is enabled; 2) explain a term; or 3) prove the inherency of a feature present in Nawa. However, Sherif is not

used for any such purpose. Thus, the rejection is improper. Reconsideration and withdrawal of the rejection are earnestly solicited.

Applicants also respectfully note that the claims would not have been obvious over Nawa in view of Sherif.

Nawa is directed to forming bulk ceramics with only coarse particles. Nawa discloses mixing and firing ceria powder, zirconia powder and titania powder to obtain a fired product that is uniform only at the level of microns (i.e., powder). Being concerned with only coarse particles, Nawa nowhere discloses using a microemulsion, formed by adding a surfactant, in order to obtain fine metal compound oxide particles, particularly particles that are uniform at the atomic level. Accordingly, the use of a surfactant is neither taught nor suggested by Nawa.

In contrast, instant independent claim 1, and thus claims 2-5, 7-11 and 13 depending therefrom, and independent claim 6, and thus claims 12 and 14 depending therefrom, require use of a "microemulsion," including a "surfactant." Such a surfactant is required to form the microemulsion. In a microemulsion, reaction sites are micro-sized, and particles may be between several nanometers to several tens of nanometers, and use of a microemulsion can achieve uniform *atomic level* alignment of the particles can be obtained. See specification, for example, at page 3, lines 10-13. There is no suggestion in Nawa to achieve a microemulsion, or to use a surfactant to do so.

Sherif does not remedy this deficiency of Nawa. Sherif is only relied upon to teach that it would have been obvious to use zirconium alkoxide instead of titanium alkoxide. Further, Sherif nowhere discloses the desirability of use of a microemulsion or surfactant in the Nawa process. Rather, Sherif's examples each disclose a dispersion having a median particle size in the range of microns; not nanometers. It would thus not have been obvious to obtain the claimed features by looking from Nawa to Sherif.

For at least the foregoing reasons, instant claims 1-6 would not have been obvious over Nawa in view of Sherif. Reconsideration and withdrawal of the rejection are respectfully requested.

II. Rejections under 35 U.S.C. §103(a)

The Final Rejection mailed January 31, 2007 rejects claims 7-12 under 35 U.S.C. §103(a) as unpatentable over Nawa in view of Sherif and Uenishi. The Office Action asserts that the combination of Nawa and Sherif teaches each claimed feature except for "an exhaust gas purification catalyst carrier by a production process" which is taught by Uenishi. It would thus have allegedly been obvious to an ordinarily skilled artisan at the time of the invention to provide mixed oxide comprising zirconium and cerium as catalysts as taught by Uenishi. Applicant respectfully traverses this rejection.

For the reasons discussed above, instant claim 1 is patentable over Nawa in view of Sherif. Because Uenishi does not remedy the deficiencies of either Nawa or Sherif, this rejection is also overcome.

For at least the foregoing reasons, claims 7-12 are not unpatentable over Nawa in view of Sherif and Uenishi. Reconsideration and withdrawal of the rejection are earnestly solicited.

III. Conclusion

In view of the foregoing, it is respectfully submitted that this application is in condition for allowance. Favorable reconsideration and prompt allowance of claims 1-12 are earnestly solicited.

Should the Examiner believe that anything further would be desirable in order to place this application in even better condition for allowance, the Examiner is invited to contact the undersigned at the telephone number set forth below.

Respectfully submitted,

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